

Work Order ID 56673



Page 1

March 4, 2010 11:26:46 AM

Item ID: D412-742-043

Accept



Setup Start



Revision ID:

Item Name: Replacement Float Skidtube

Stop



Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/12/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

QC:

Date:

Tooling:

Date:

SPC (Y/N):

Date:

Date:

Run Start

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D3391	Rev H

100



0.00

DOCUMENT CONTROL

DC

Document Control

Memo

0.00

If D412-742-043 is a W/O on its own,
Photocopy bluefile and create labels per PPP D412-742-043 CHG004

N/A JG

Work Order ID 56673

March 4, 2010 11:26:51 AM



Page 2

Item ID: D412-742-043

Accept



Setup Start



Revision ID:

Item Name: Replacement Float Skidtube

Stop



Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/12/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110



HandFinishing

0.00

HandFinish

Hand Finishing

Memo

0.00

1-Install tubes together and seal them all the way around using Sikaflex 241/291. Ensure tube ends line-up with saddle holes for proper alignment. using 7/16" "T" Pins.

A/R Sikaflex-241/-291 M112429Expiry date: 10/08

2-Install wearplates as per Dwg D3391. Ensure that plastic washers are against wearplate, then topped with the SS washer. Seal all bolts with sikaflex except ones with inserts on inside of tube ,hand tighten only bolts with no sikaflex.

A/R Sikaflex-241/-291 M112429Expiry date: 10/08

3-Remove "T" pins once sikaflex is dry.

4-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser.

A/R LPS Procyon 104251

PL 10-4-21 ①

Work Order ID 56673

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Page 3

Item ID: D412-742-043

Accept



Setup Start



Revision ID:

Item Name: Replacement Float Skidtube

Stop



Start Date: 3/04/10 Start Qty: 1.00



Cust Item ID:

Required Date: 3/12/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

120



QC

Quality Control

Operation
Description

QC5- Inspect part completeness to step on W/O

Set Up/
Run Hours

0.00

Draw
Number

Draw

Plan
Rev.

Code

Accept
Qty

Reject

Reject
Qty

Number

Reject
StampInsp.
Stamp

S104b1

130



Packaging

Packaging

Packaging

0.00

0.00

Identify and pack for shipping as per PPP D412-742-043

Location: _____

PPP Rev: _____

PP

56676

(X)

10/04/27 SP

140



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/04/27 JJ

MF 10-4-27

Picklist Print

Page 1

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8

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments:

IPP Rev A 05.10.13 New Issue
IPP Rev B 06.02.13 ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

AN3C4A



Purchased

No

110

Each

1,333.000 24.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST 114380

1333

24. BL 10-4-21.

112314 13

112720 12

112724 3

112829 1

112991 2

113121 64

113226 344

113644 294

113749 100

114103 500

AN3C6A



Purchased

No

110

Each

730.0000 12.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST 111982

730

111982 730

12 BL 10-4-21.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 2

March 4, 2010 11:23:51 AM

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments:

IPP Rev A □ 05.10.13 □ New Issue □
IPP Rev B □ 06.02.13 □ ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM □

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

AN3C7A



Purchased

No

110

Each

493.0000

8.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Main Warehouse

ST	493	
105906	21	
107376	252	
113149✓	220	

8. BL 10-4-21.

AN960C10L



washer

Purchased

No

110

Each

388.0000



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

OFFSHORE

FG	100	
103585	100	

44. BL 10-4-21.

Main Warehouse

ST	288	
112116	128	
112612	160	

D3391-021



Manufactured

No

110

Each

0.0000



Fwd Tube Assembly

N
F
Need on
D3391-021
#53942 53W75

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 3

March 4, 2010 11:23:52 AM

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments: IPP Rev A 05.10.13 New Issue
IPP Rev B 06.02.13 ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

D3391-023

Manufactured No

110

Each

2.0000

1.0000



Mid Tube Assembly

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST 53942

2

1

BR 10-3-4.

40522

1

53938

1

D3391-025

Manufactured No

110

Each

3.0000

1.0000



Aft Tube Assembly

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST 54701

3

1

BR 10-4-21.

39129

1

48122

1

54703

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 4

March 4, 2010 11:23:53 AM

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments:

IPP Rev A 05.10.13 New Issue
IPP Rev B 06.02.13 ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

D3564-1

Manufactured No

110

Each

19.0000

1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	2	
33798	2	
Main Warehouse		
ST	17	
47531	1	
50270	1	
51676 ✓	15	

1 BK 10-4-21.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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March 4, 2010 11:23:53 AM

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments: IPP Rev A 05.10.13 New Issue
IPP Rev B 06.02.13 ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

D3564-3



Manufactured No

110

Each

20.0000

1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	2	
33764	2	
Main Warehouse		
FP	6	
50113 ✓	6	1 Bl 10-4-21.
Main Warehouse		
FP19	11	
55489	11	
Main Warehouse		
ST	1	
46445	1	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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March 4, 2010 11:23:54 AM

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments:

IPP Rev A□05.10.13□New Issue□
IPP Rev B□06.02.13□ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM□

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

D3564-5

Manufactured No

110

Each

37.0000

1.0000



Wearshoe



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	2	
34806	2	
Main Warehouse		
FP19	33	
51925	1	
54772	7	
55024	12	
55333✓	13	BL10-4-01.
Main Warehouse		
ST	2	
45824	1	
47433	1	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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March 4, 2010 11:23:54 AM

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments:

IPP Rev A 05.10.13 New Issue
IPP Rev B 06.02.13 ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

D3566-1

Manufactured No

110

Each

25.0000

2.0000



Gasket

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

FP 57257

20

2.

BK 10-4-21

52512

3

54480

1

55011

1

55320

15

Main Warehouse

ST

5

46349

1

51218

1

51259

3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March 4, 2010 11:23:55 AM

Page 8

Work Order ID: 56673



Parent Item: D412-742-043



Parent Item Name: Replacement Float Skidtube

Start Date: 3/04/10

Required Date: 3/12/10

Comments:

IPP Rev A 05.10.13 New Issue
IPP Rev B 06.02.13 ECN 773 dwg @ rev.D
IPP Rev:C 07-05-28 As per Rev F
IPP Rev:D 07-12-04 ECN 1072

KJ/JLM

EC

JLM

DD verified by:JLM

Start Qty: 1.00

Required Qty: 1.00

D3566-5

Manufactured No

110

Each

27.0000

1.0000

Gasket



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP19 06829	23	
55026	11	
55335	12	
Main Warehouse		
ST	4	
36113	1	
46186	1	
47318	1	
51260	1	

1 BL 10-4-21.

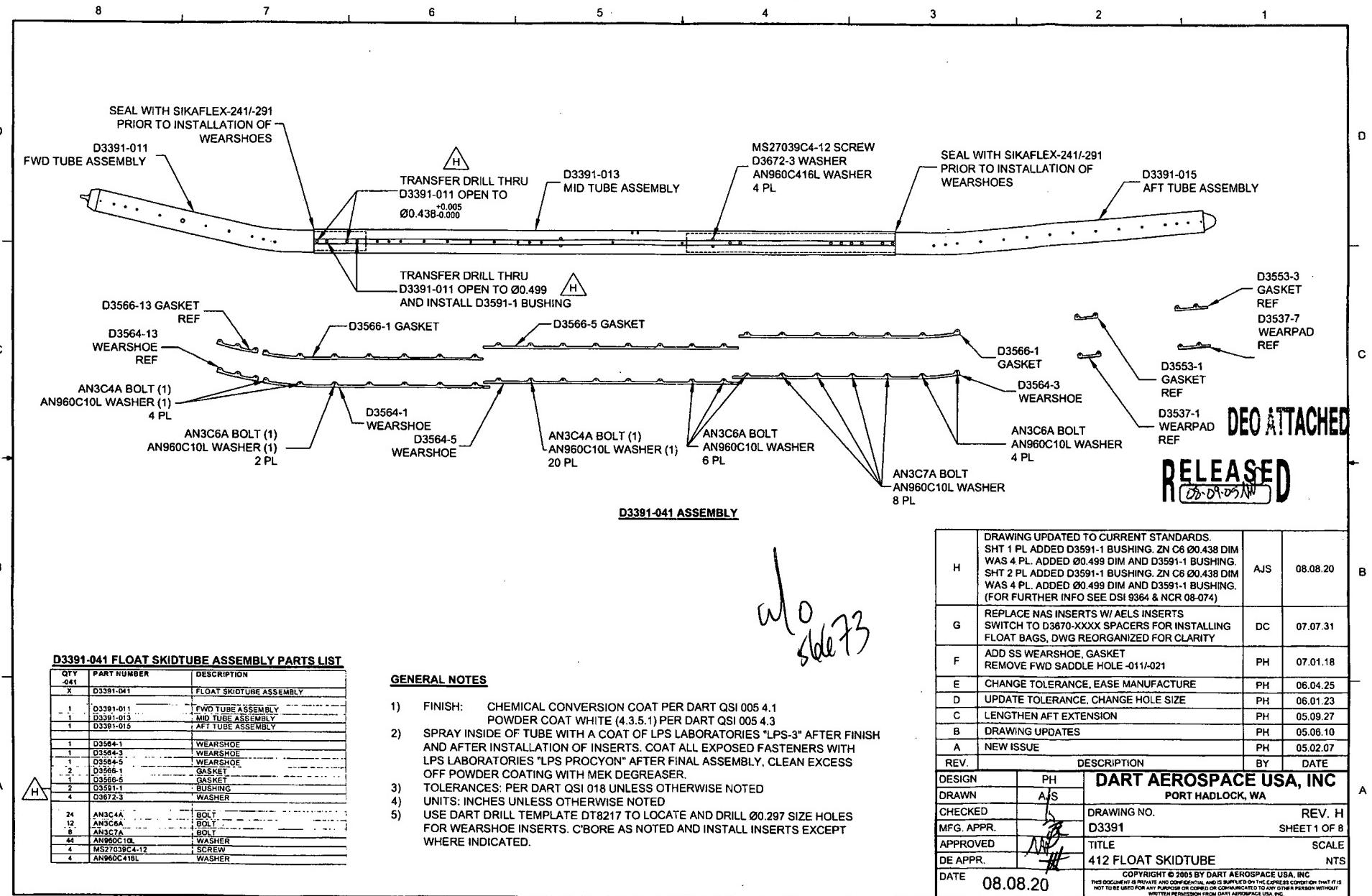
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

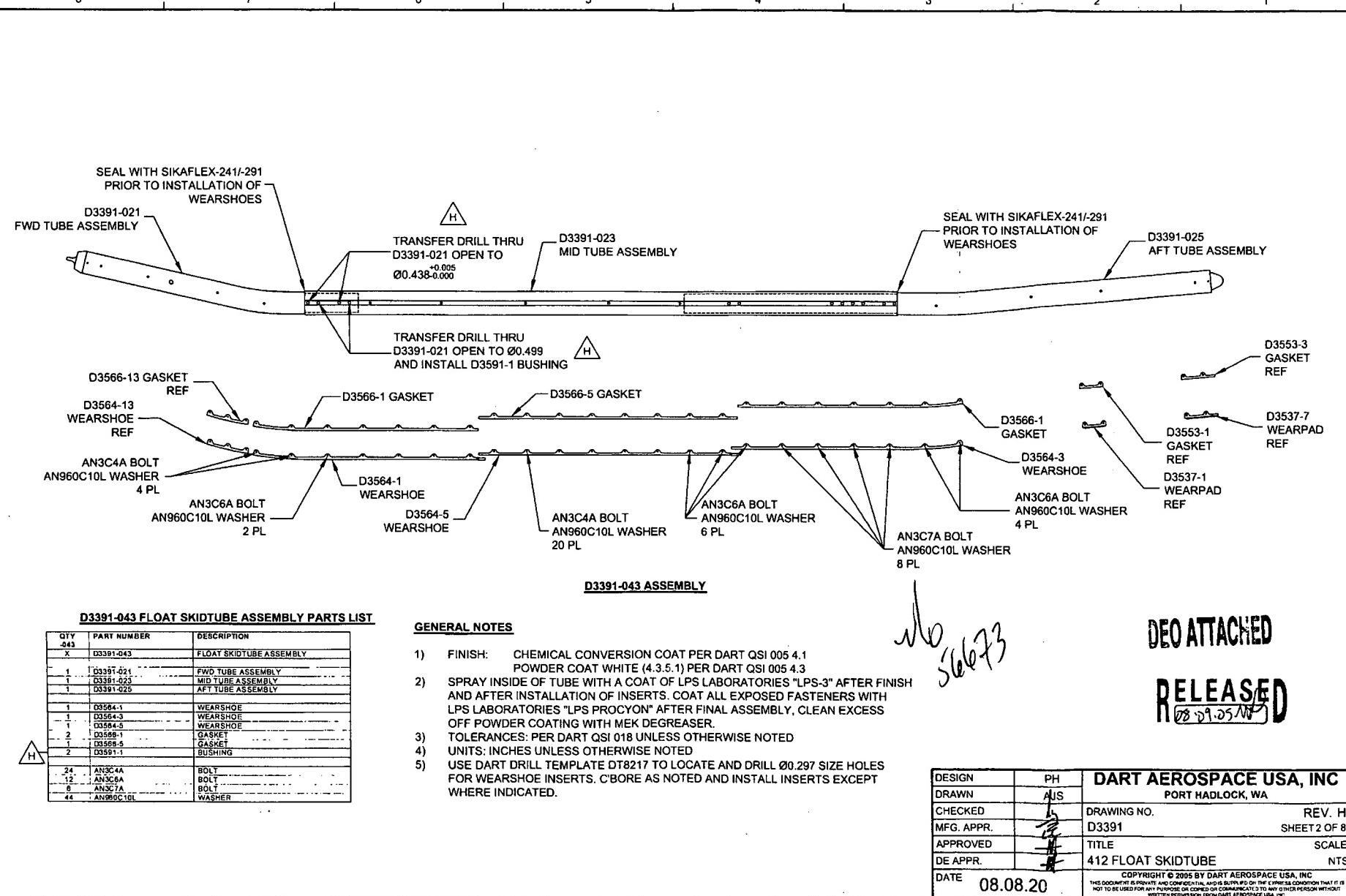
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

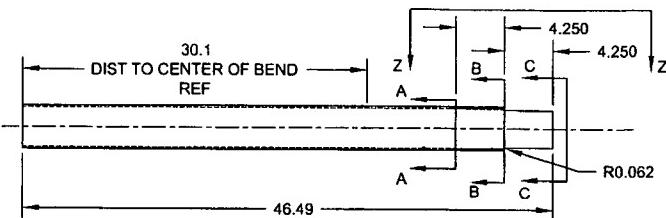


D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST		
QTY -041	PART NUMBER	DESCRIPTION
X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-001	FWD TUBE ASSEMBLY
	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
2	D3591-1	BUSHING
4	D3672-3	WASHER
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER
4	MS2703C4-12	SCREW
4	AN960C16L	WASHER

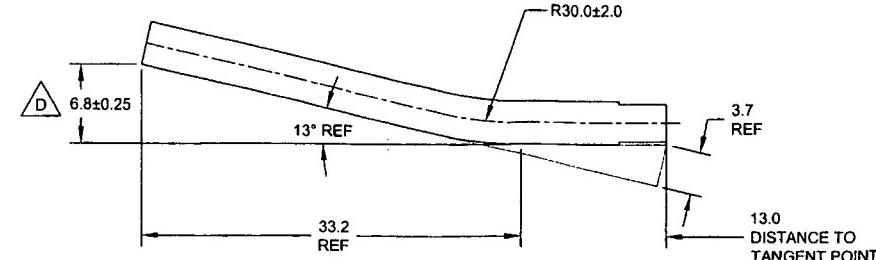


8 7 6 5 4 3 2 1

D

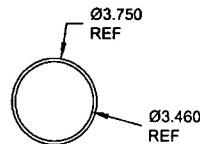


D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)

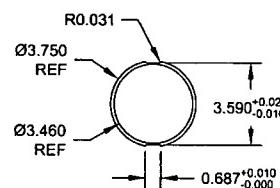


D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)

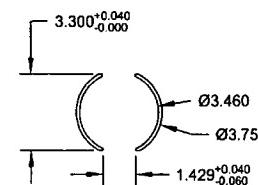
C



SECTION A-A
SCALE 2X



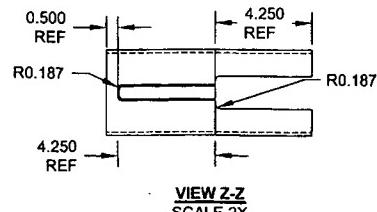
SECTION B-B
SCALE 2X



SECTION C-C
SCALE 2X

B

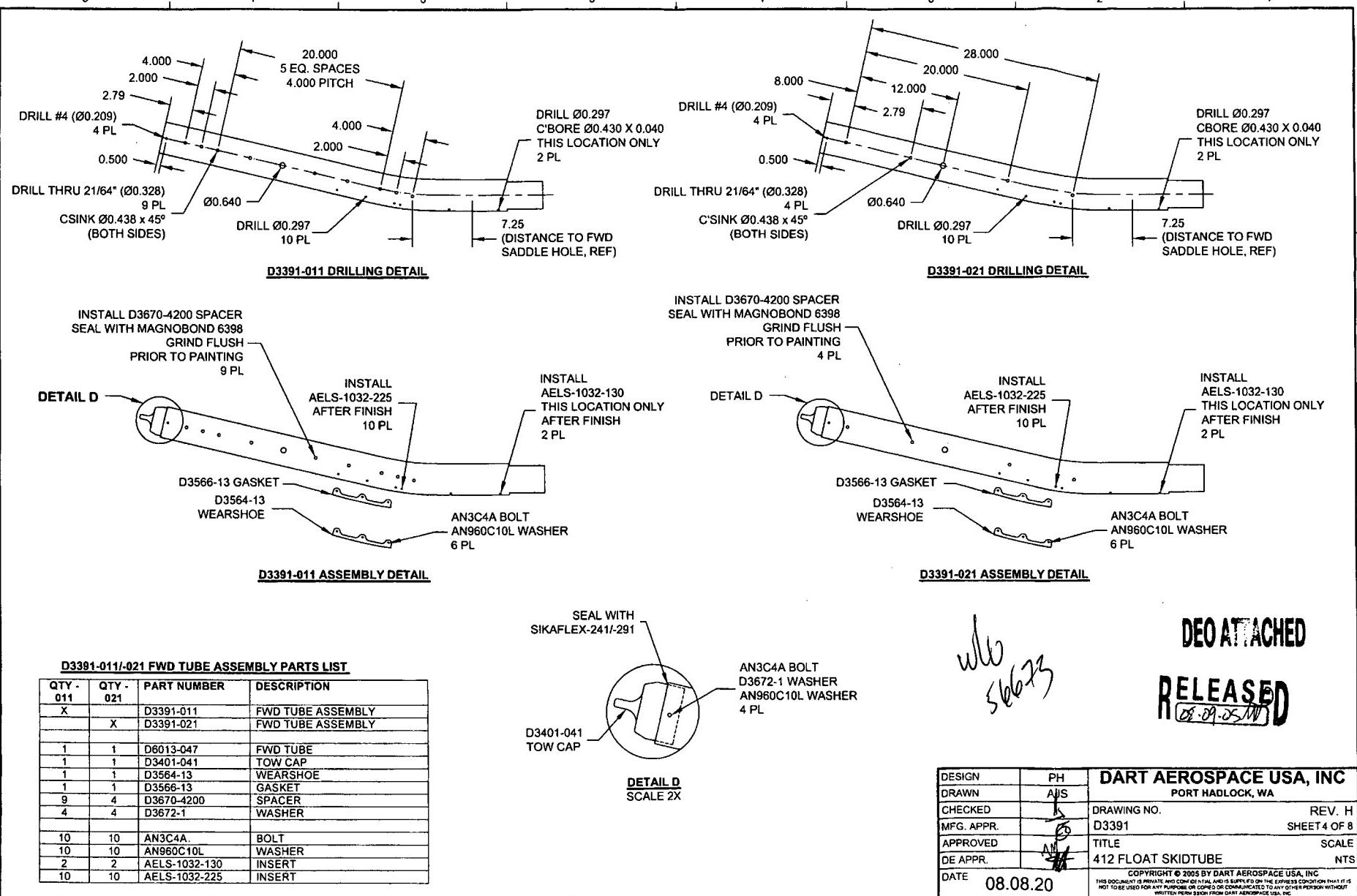
A

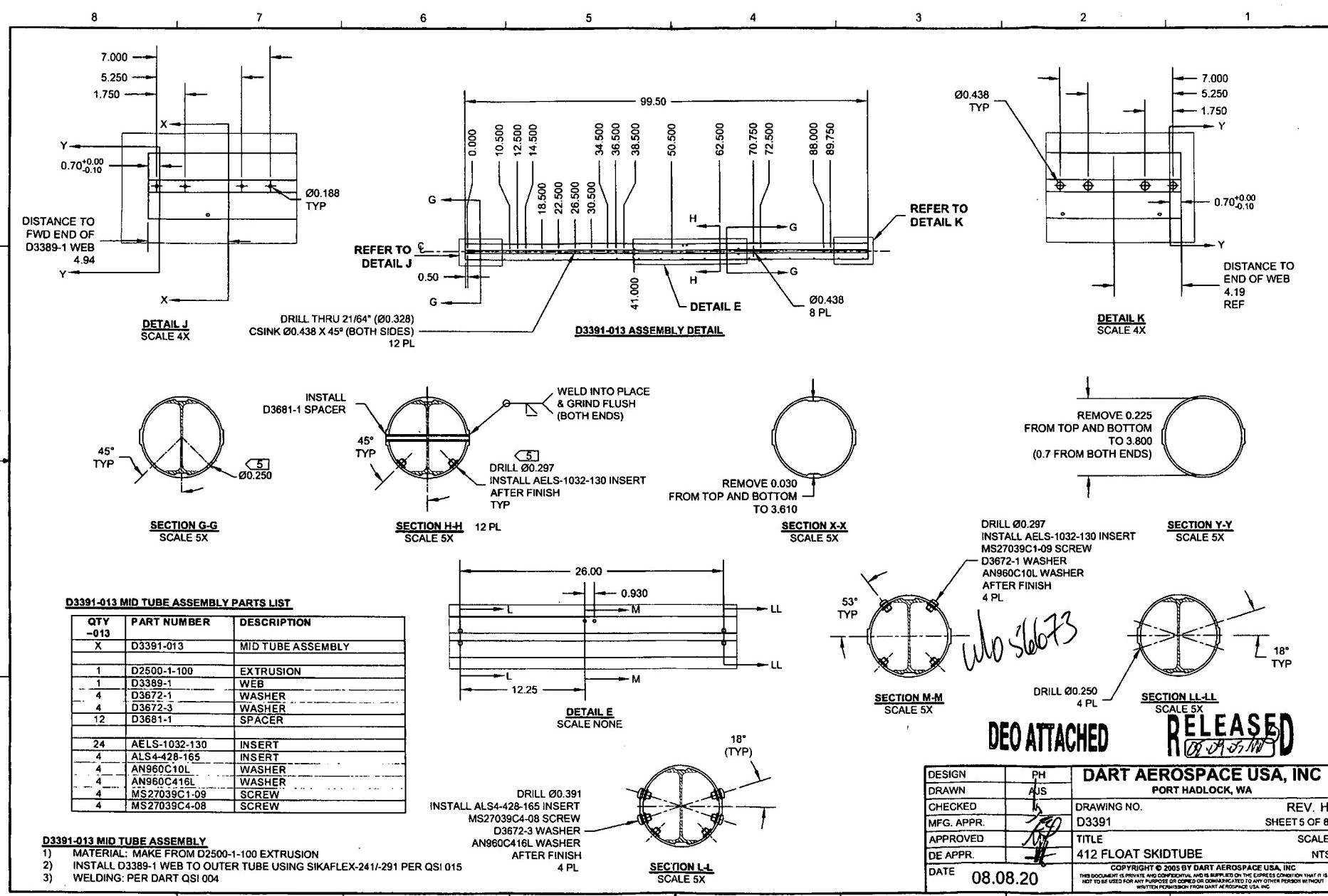


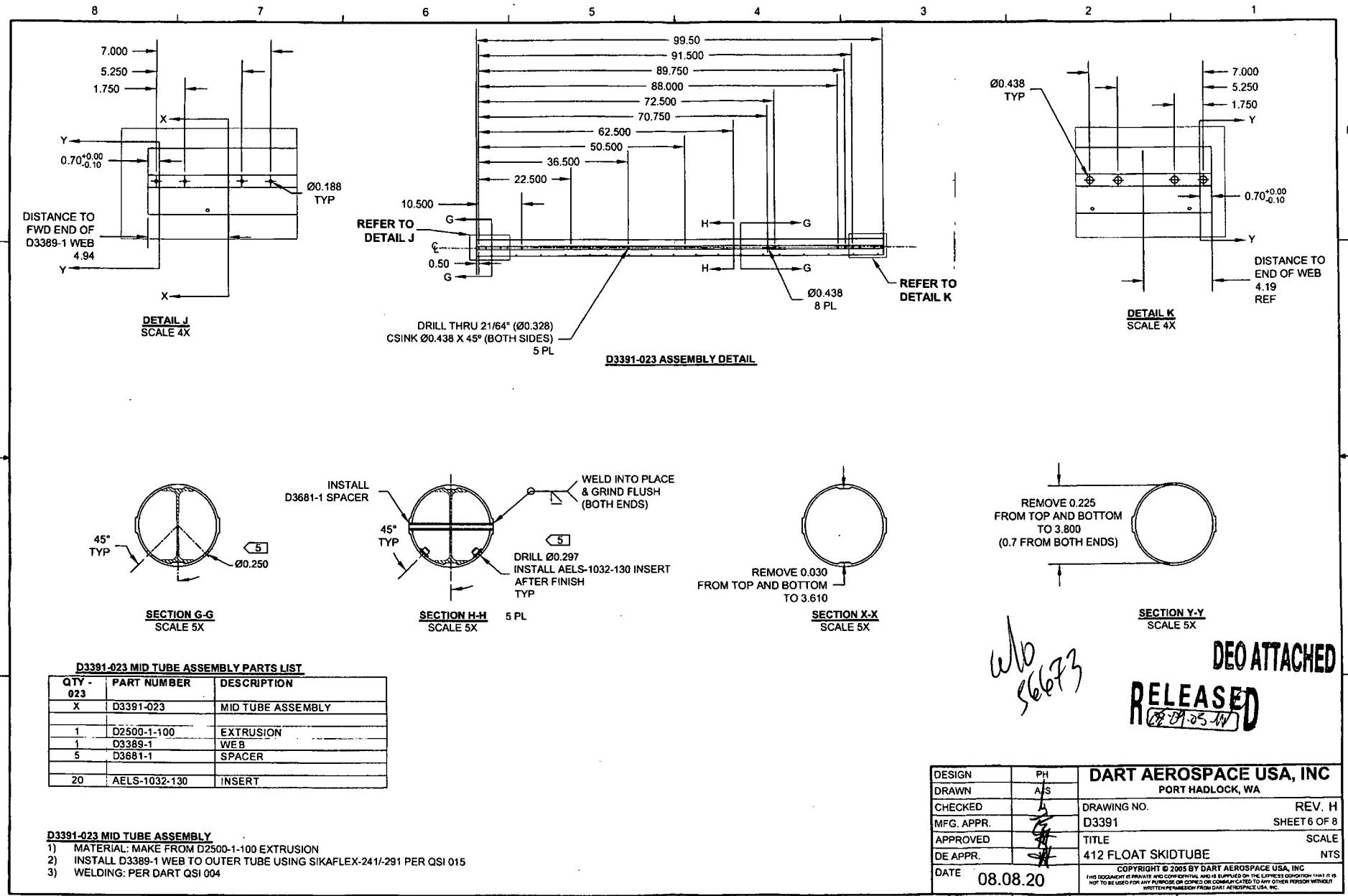
VIEW Z-Z
SCALE 2X

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AUS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.	SC	D3391	SHEET 3 OF 8
APPROVED	NP	TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS UNPUBLISHED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY OTHER PURPOSE OR COMMUNICATED TO ANY PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC	

DEO ATTACHED
RELEASED
W/ 6673
08/08/05 AM

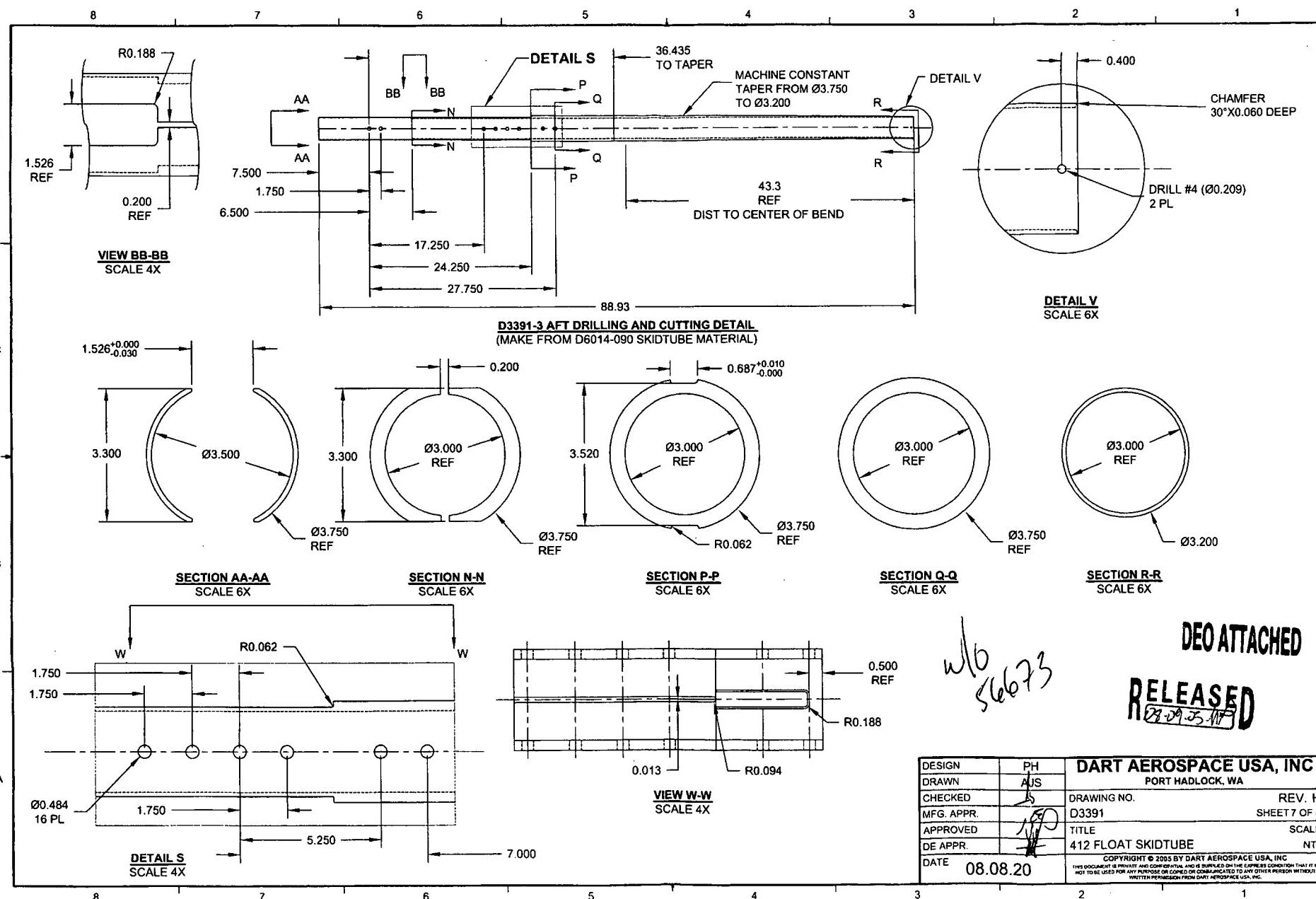






W/D
6/6/23

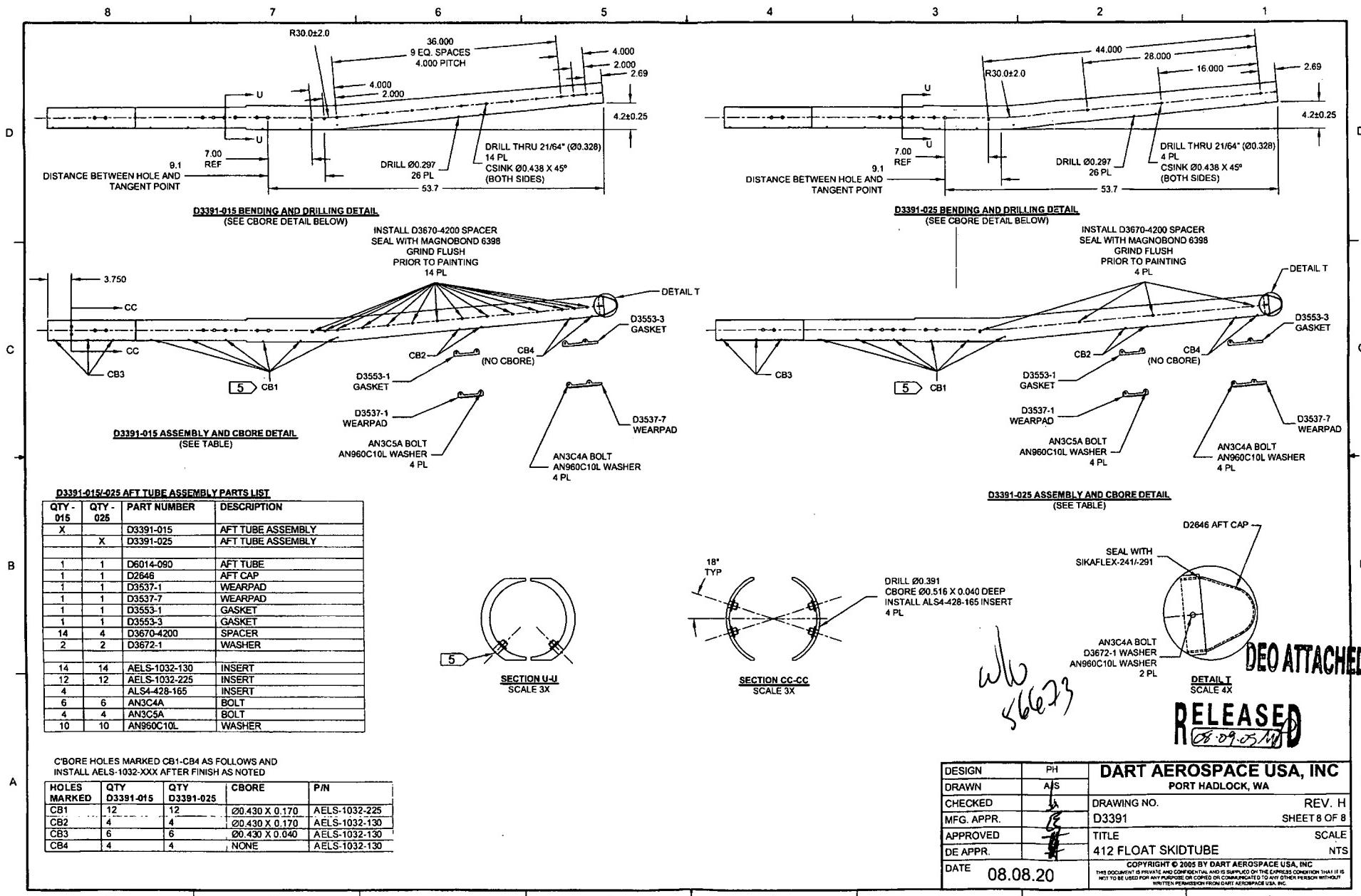
RELEASED
08.08.20



DEO ATTACHED

RELEASED
28-29-25-17

DESIGN	PH	DART AEROSPACE USA, INC		
DRAWN	AJS	PORT HADLOCK, WA		
CHECKED		DRAWING NO.	REV. H	
MFG. APPR.		D3391	SHEET 7 OF 8	
APPROVED	<i>[Signature]</i>	TITLE	SCALE	
DE APPR.	<i>[Signature]</i>	412 FLOAT SKIDTUBE	NTS	
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PROVIDED AS A REFERENCE ONLY AND IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT		



DRAWING NO. D3391	TITLE 412 FLOAT SKIDTUBE	REV. H	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3391-H-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>JP</i>	CHECKED <i>J</i>	MFG. APPR. <i>AA</i>	APPROVED <i>WJD</i>	DE APPR. <i>#</i>		
DATE 09/09/23	DATE 09/09/24	DATE 09/09/25	DATE 09/09/23	DATE 09/09/23	DATE 09/09/23	

PURPOSE:

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF D3391-041/-043 SKIDTUBES.

CHANGE:

AMEND NOTE 2 OF D3391-041/-043 SKIDTUBE ASSEMBLIES (ZN A6-1, A6-2) AS FOLLOWS:

- 2) ~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.~~ COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

RELEASED
2010-02-02
MP

*WJD
5/6/23*